

## REMARKS/ARGUMENTS

Claims 1-4, 6-15, 17-18 and 21-30 are pending in the application.

Claims 1 and 17 are amended above to limit the application claims to cover the single A<sub>2A</sub> receptor agonist CVT-3146.

Claims 6-9 are amended above to make them consistent with claim 1 which is directed to intravenous bolus administration.

No new matter is added to the claims by these amendments.

The examiner's claim rejections are overcome or they are traversed as set forth below.

### **I. THE DOUBLE PATENTING REJECTIONS**

The examiner has rejected application claims for double patenting and for provisional double patenting over commonly owned U.S. patents and patent application.

The claims are amended above to limit them to CVT-3136. Reference to CVT-3033 has been removed from the claims. As a result, the double patent rejections with respect to U.S. patent nos. 7,190,180, 6,855,818, 6,770,634 and 6,214,807 and the provisional double patenting rejection with respect to U.S. application no. 11/522,120 are moot.

The remaining double patenting rejections are believed to be without merit. In particular, the remaining references cited by the examiner for double patenting do not disclose the administration of the minimal amount of CVT-3146 of claim 1. Moreover, the U.S. patent applications and patents cited by the examiner in the double patenting rejection do not disclose the method of claim 17 whereby CVT-3146 is administered in an amount effective to cause at least a 2.5 fold increase in coronary blood flow. The features of independent claims 1 and 17 recited above are nowhere disclosed in the commonly known patents and patent applications cited by the examiner. Nor has the examiner identified any additional reference where the claimed features are disclosed. For this reason, the examiners respectfully requested to remove the double patenting rejection of all pending application claims.

### **II. THE ANTICIPATION REJECTIONS**

The examiner rejected all pending claims for being anticipated by each of Zablocki '567 and Gao et al. The examiner's rejections are traversed below.

#### **A. Claims 1-4 And 6-15 Are Novel**

Independent claim 1 calls for the intravenous bolus administration of CVT-3146 to a human. Neither Zablocki '657 or Gao et al. disclose intravenous bolus administration of CVT-

3146 or any other compound. For the reason, the prior art fails to disclose every feature of independent claim 1 and, therefore, claims 1-4 and 6-15 are novel.

#### **B. Claims 17-18 And 21-30 Are Novel**

The examiner's anticipation rejection of claims 17-18 and 21-30 seems to ignore the features of claim 17 and refer instead to limitations in the claims of the U.S. Patent Application 11/253,322. Regardless, neither Gao nor Zablocki '657 discloses or suggests the administration of CVT-3146 to a human in order to achieve at least a "2.5 fold increase in coronary blood flow...within about one minute from the administration" of the compound. Moreover, this result is not inherent from the Gao of the Zablocki '567 reference. Gao et al. and the examples of the Zablocki '567 reference are all directed to animal testing or testing of CVT -3146. Therefore, the results of the testing of the compound on a human would not necessarily flow from the Gao et al. reference or the Zablocki '567 examples. For at least these reasons, claims 17-18 and 21-30 are novel over Zablocki '567 and the Gao et al. article.

### **III. THE OBVIOUSNESS REJECTION**

The examiner rejected all pending claims for being obvious over Zablocki et al. '567.

The applicant points out that the Zablocki '567 reference at least does not disclose the intravenous administration of CVT-3146 by bolus of claims 1-4 and 6-15 nor does it disclose the specific required coronary blood flow increase and time limitation of claims 17-18 and 21-30. At minimum, both of these features of the independent claims are not found in the prior art and all pending claims are non-obvious and patentable.

The examiner takes the position in the obviousness rejection that Zablocki does not disclose the specific details of administration of pharmaceutical compositions containing CVT-3146 but insists that it would have been obvious to a person of skill in the art at the time the invention was made to conduct experimentation to determine the optimal conditions of administration. The determination of the administration parameters of a pharmaceutical composition to a human is not routine. Alternative administration routes must be evaluated, the dosing ranges must be evaluated and side effects must also be determined. Therefore, the administration of CVT-3146 linked to intravenous bolus is believed to be non-obvious over the Zablocki '567 reference.

Likewise, none of the prior art cited by the examiner discloses or suggests the specific increase in coronary blood flow in the time recited in claim 17. Indeed, the examiner appears not to have even applied the Zablocki reference to claim 17 in the obviousness rejection. The

requirement of claim 17 that the CVT-3146 be administered in an amount that causes at least a 2.5 fold increase in coronary blood flow within about a minute, therefore, renders claims 17-18 and 21-30 non-obvious over the recited prior art.

### CONCLUSION

Applicants submit that the claims are in condition for allowance. A Notice of Allowance is requested, and a prompt mailing thereof would be much appreciated. Should the Examiner have any questions, he is invited to contact the undersigned attorney at (312) 913-2123.

Respectfully submitted,

McDonnell Boehnen Hulbert & Berghoff LLP

Date: October 3, 2007      By: /A. Blair Hughes/  
A. Blair Hughes  
Reg. No. 32,901  
(312) 913-2123